

VOC measurements by PTR-MS

Science Flight 2, NAM

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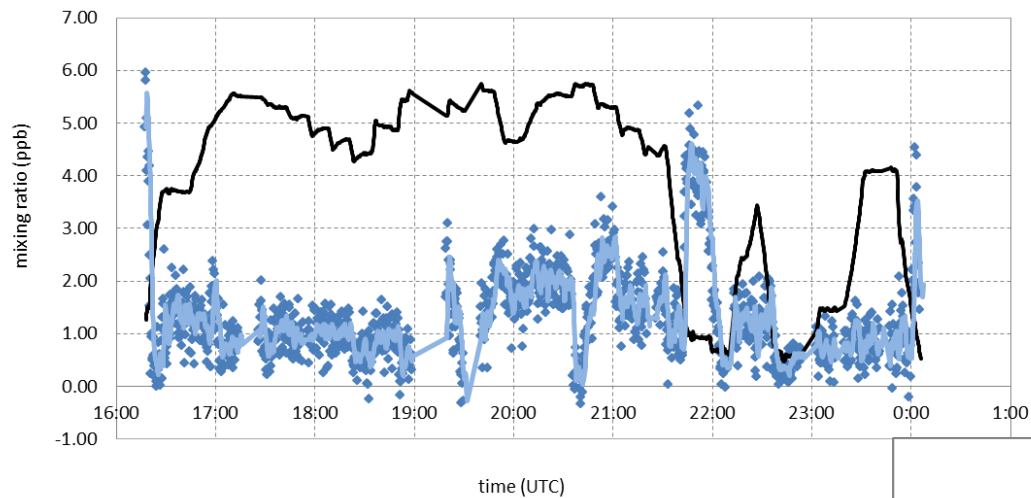
Tracers of BL air

compound	major sources	atmospheric lifetime
methanol*	biosphere, photochemical production, biomass burning	~ 1 week
acetone*	biosphere, photochemical, production, biomass burning	few weeks
acetic acid	biosphere, photochemical, production, biomass burning	few days (wet deposition)
isoprene, MVK/MACR	biosphere, photochemical, production	< 1 hour, 5-10 hours
benzene, toluene	anthropogenic, biomass burning	1-2 weeks, 1-2 days
acetonitrile	biomass burning	several months

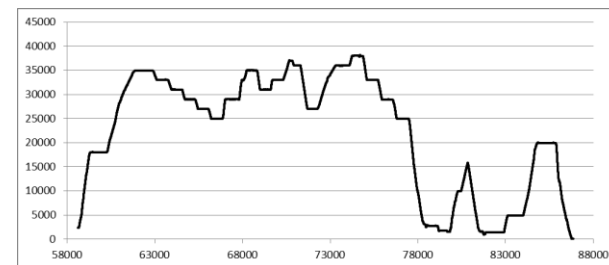
* omnipresent, most abundant VOCs in BL

Methanol

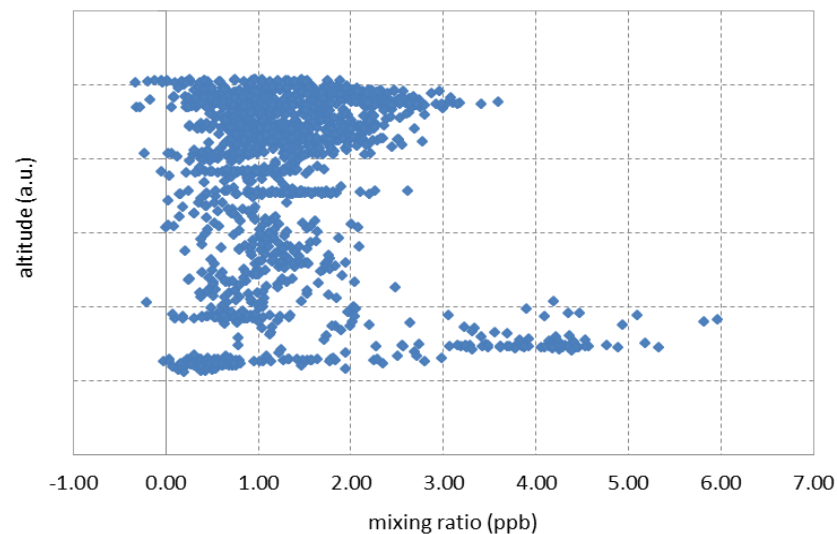
methanol vs. time



altitude (a.u.)

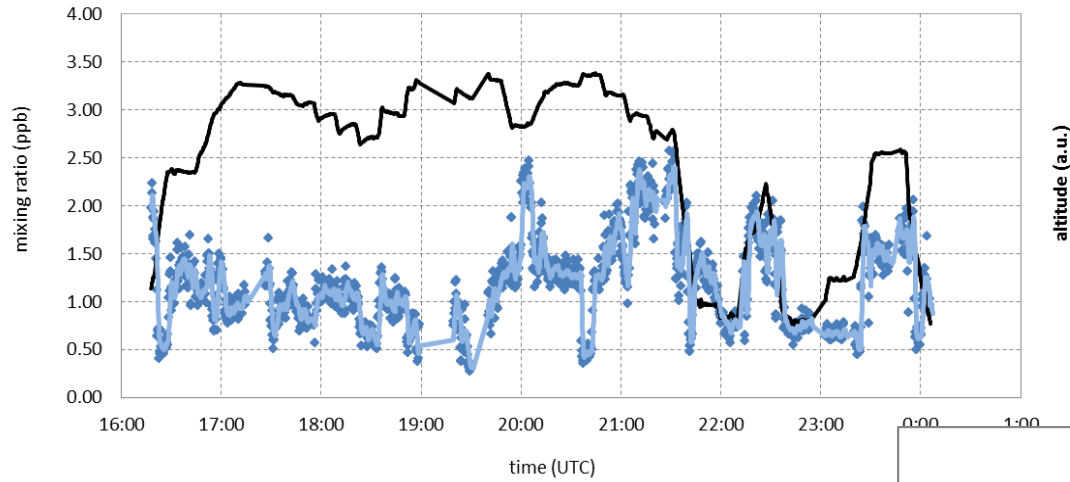


methanol vs. altitude

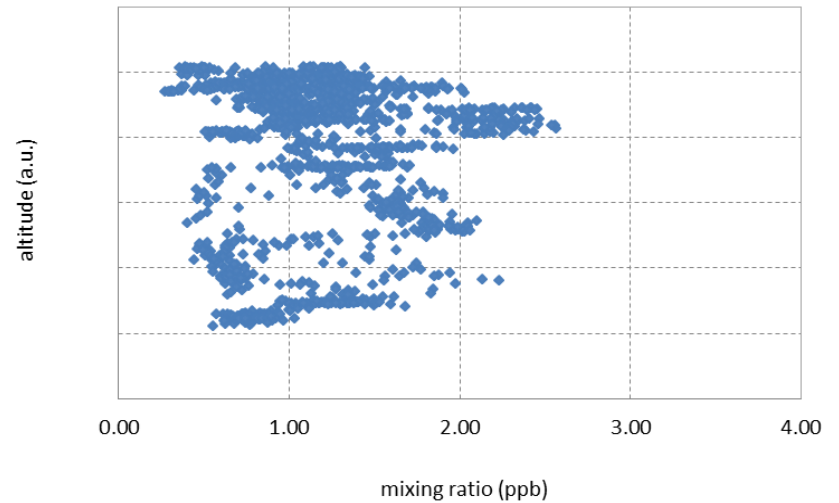


Acetone

acetone vs. time

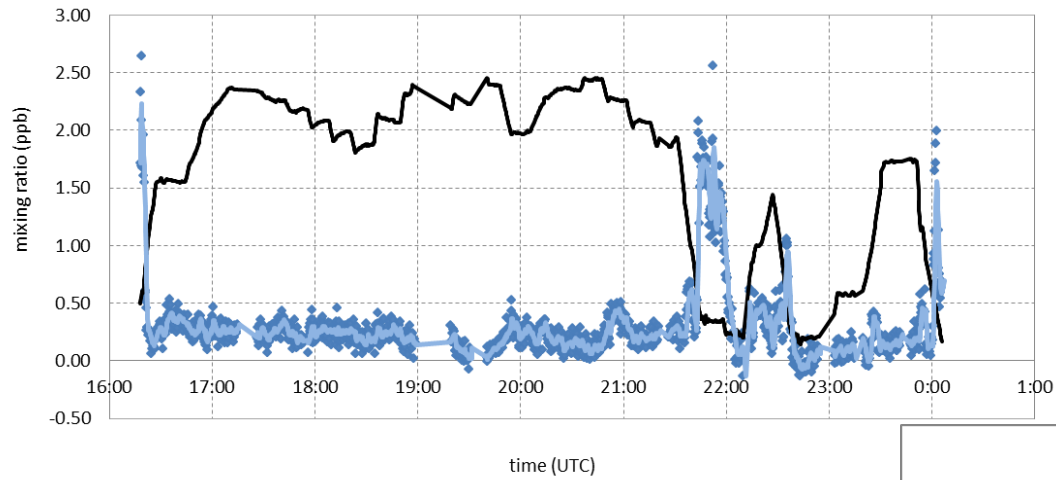


acetone vs. altitude

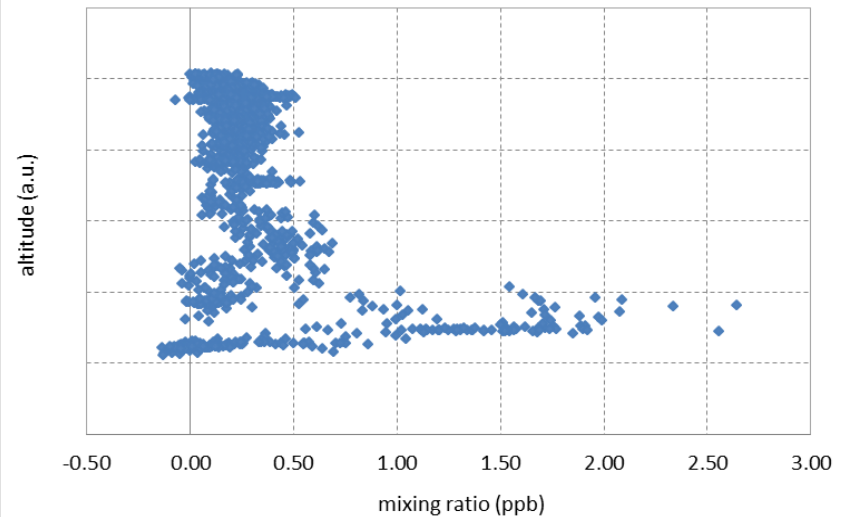


Acetic acid

acetic acid vs. time

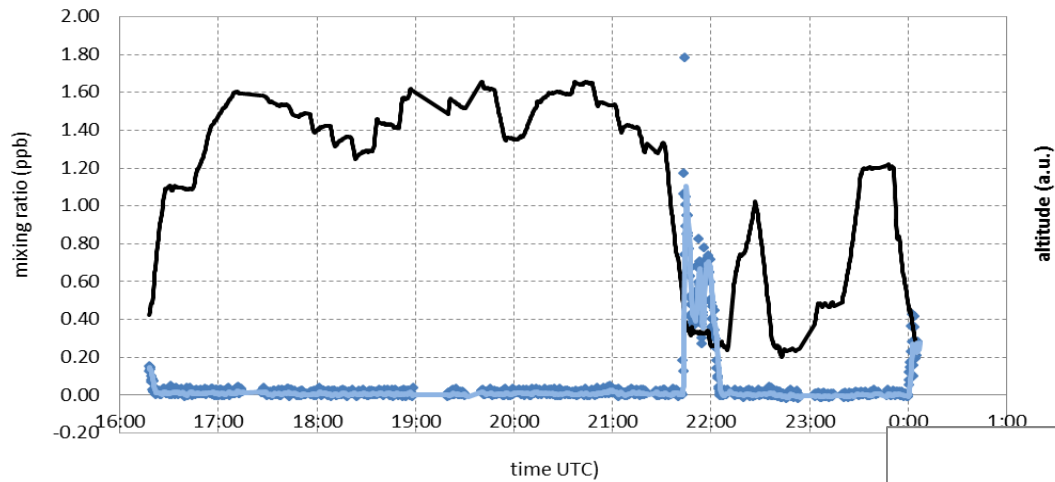


acetic acid vs. altitude

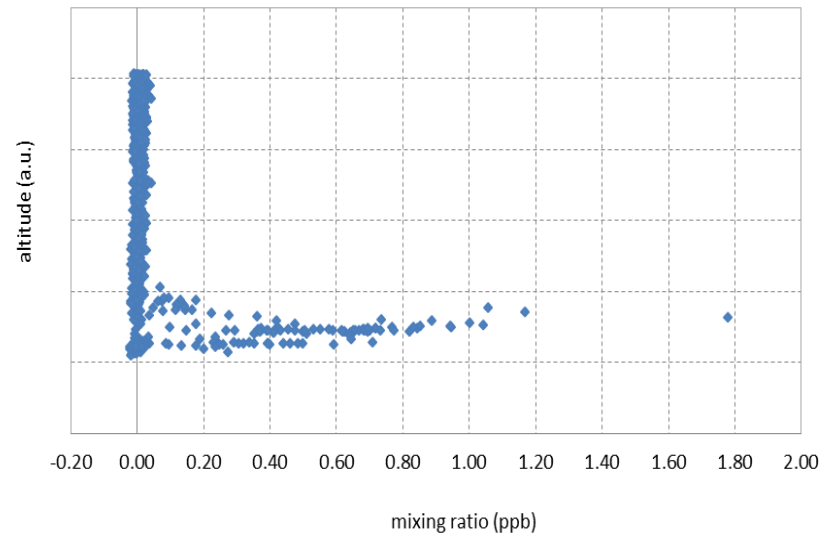


MVK/MACR

MVK/MACR vs. time

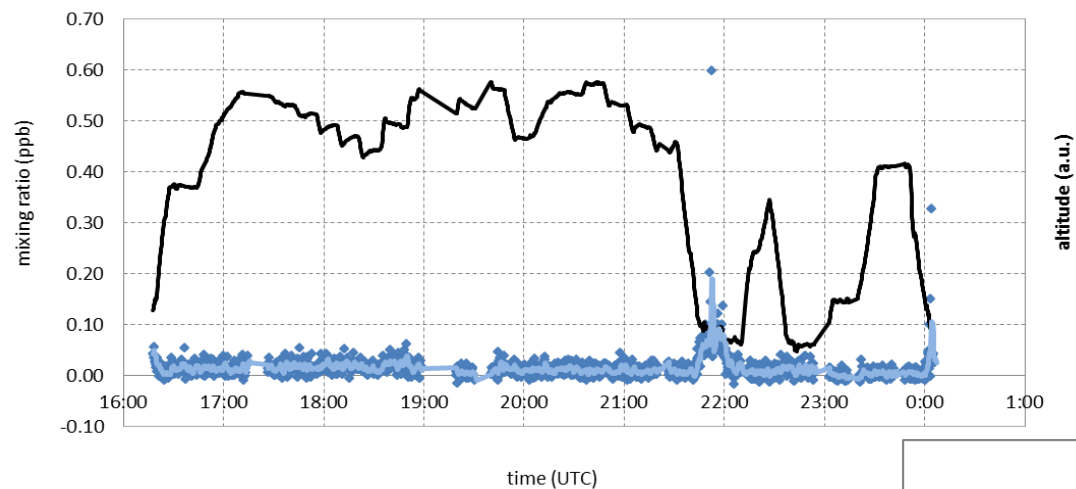


MVK/MACR vs. altitude

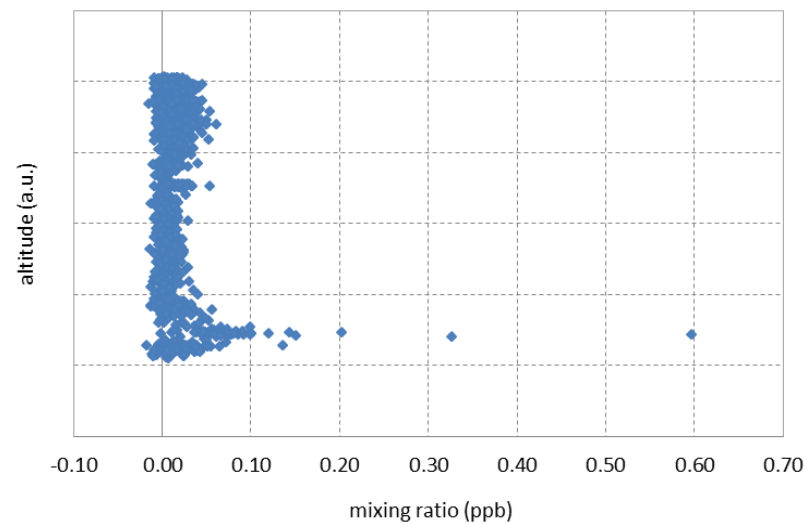


Benzene

benzene vs. time

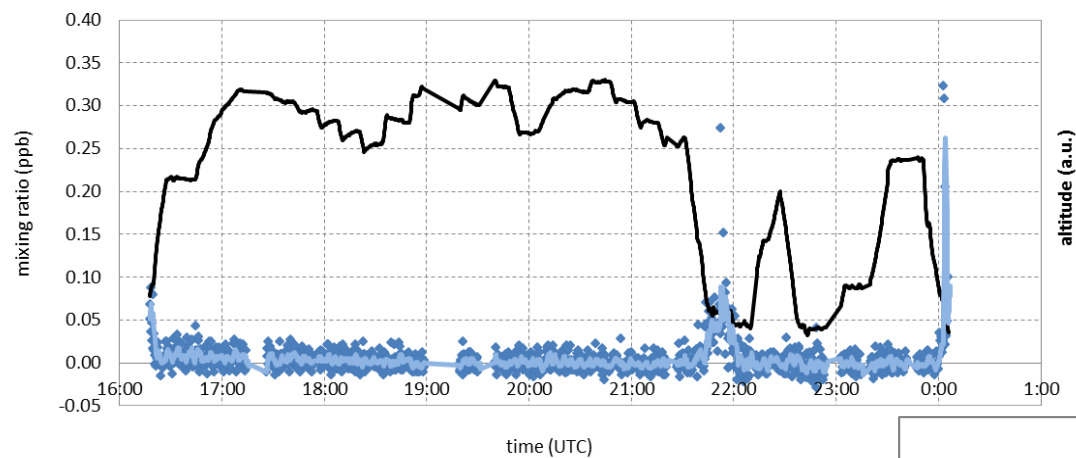


benzene vs. altitude

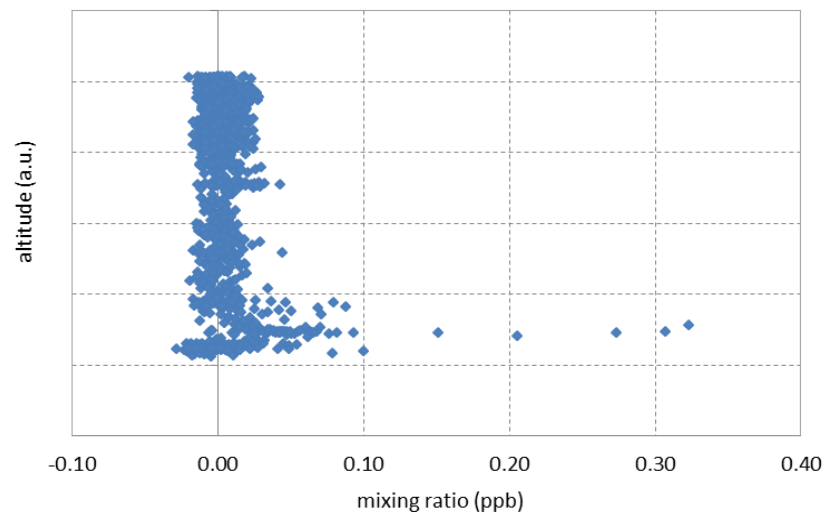


Toluene

toluene vs. time

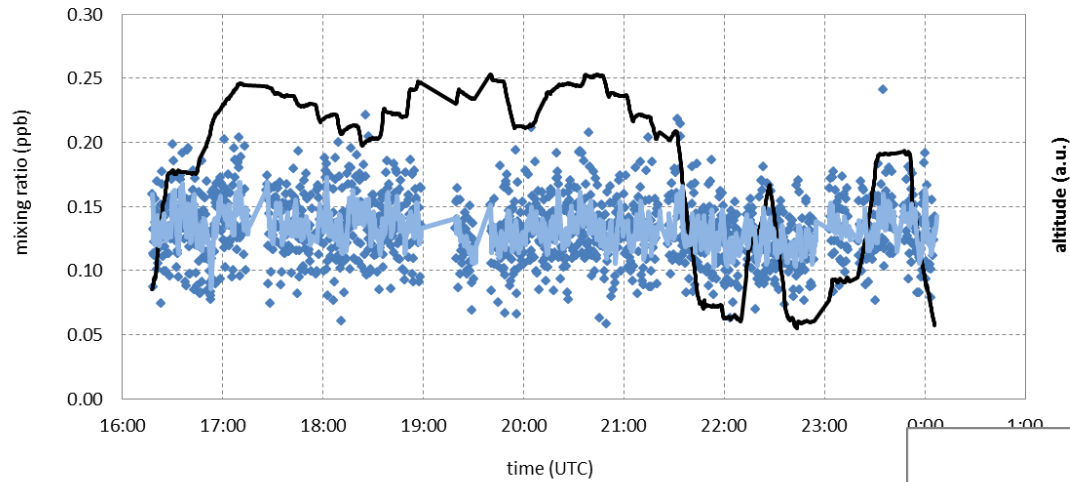


toluene vs. altitude



Acetonitrile

acetonitrile vs. time



acetonitrile vs. altitude

